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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR.	ATTORNEY DOCKET NO.
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09/148,723 09/03/96 FARNWORTH W MI22-981

021567 QM12/0912
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EXAMINER

TUGBANG, D

ART UNIT

PAPER NUMBER

3729

DATE MAILED:

09/12/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

9-12-00

Office Action SummaryApplication No.
09/148,723Applicant(s)
Farnworth et alExaminer
A. Dexter TugbangGroup Art Unit
3729☒ Responsive to communication(s) filed on Aug 10, 2000☐ This action is **FINAL**.☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims☒ Claim(s) 1-3, 6, 8, 11-13, 20, 22-24, 26, 27, 29-31, 36, 37, and 45-47 is/are pending in the application.Of the above, claim(s) 12, 46, and 47 is/are withdrawn from consideration.☐ Claim(s) _____ is/are allowed.☒ Claim(s) 1-3, 6, 8, 11, 13, 20, 22-24, 26, 27, 29-31, 36, 37, and 45 is/are rejected.☐ Claim(s) _____ is/are objected to.☐ Claims _____ are subject to restriction or election requirement.**Application Papers**☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.☐ The drawing(s) filed on _____ is/are objected to by the Examiner.☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.☐ The specification is objected to by the Examiner.☐ The oath or declaration is objected to by the Examiner.**Priority under 35 U.S.C. § 119**☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.☐ received in Application No. (Series Code/Serial Number) _____.☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).**Attachment(s)**☐ Notice of References Cited, PTO-892☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 14☐ Interview Summary, PTO-413☐ Notice of Draftsperson's Patent Drawing Review, PTO-948☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Continued Prosecution Application

1. The request filed on 8/10/00 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/148,723 is acceptable and a CPA has been established. An action on the CPA follows.

Election/Restriction

2. Newly added Claims 46 and 47 are drawn to Species D, Figure 4, with regards to the embodiment of features of "fluxless bonding" (described in the Applicant's specification at page 6, lines 1-9). Claims 46 and 47 are independent and distinct for the reasons set forth in Paper No. 5, dated 9/23/99, Paragraph No. 5.

Since Applicant has received an action on the merits for the originally presented invention of Species F, drawn to Figure 6, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, Claim 46 and 47 have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

3. Claim 12 is additionally withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to the nonelected invention of Species D, Figure 4, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

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Claim Rejections - 35 USC § 112

4. Claims 36 and 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 36 and 37 each have ambiguous claim terminology which is unclear whether later recitations of originally recited terms are intended to refer to the originally recited terms. For example, in Claim 36, the term "an individual bond pad" (lines 2-3) is unclear if this is referring to the term "individual associated bond pads" previously recited (in Claim 31, line 8). In other words, are both of these recitations referring to the same bond pads or completely different and new bond pads? The same problems occur in Claim 37.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 1-3, 6, 8, 11, 13, 20, 22, 23, 24, 26, 27, 29, 30, 31, 36, 37 and 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Trabucco 5,899,737.

Trabucco discloses the claimed bonding process comprising: contemporaneously retaining at least two balls of solder 24 over a substrate 10; exposing and melting the balls of solder with a

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fixed laser 32, 34 to effect bonding; providing a frame (masking plate 18) which moves relative to the laser via transport belt 14 and also contains individual holes 22 to register alignment of the balls of solder with the substrate; delivering the balls of solder over the frame with a vacuum fixture 28 and pickup head 26 which additionally retains the balls of solder in an ambient processing environment (see sequence of Fig. 1); and removing the frame with pickup element 36. The "individual" or "associated bond pads" is interpreted as the contact pads discussed at col. 3, lines 47-49.

Response to Arguments


7. Applicant's arguments with respect to Claims 1-3, 6, 8, 11, 13, 20, 22, 23, 24, 26, 27, 29, 30, 31, 36 and 37 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dexter Tugbang whose telephone number is (703) 308-7599.

ADT

September 10, 2000


LEE YOUNG
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